PATENT
P-5026

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S): Nicholas R. Bachur, Jr. et al.

SERIAL NO.: 09/892,061 GROUP: 1744

FILING DATE: June 26, 2001 EXAMINER: W. Beisner

FOR: System and Method for Optically Monitoring the Concentration of a Gas, or the Pressure in a Sample Vial to Detect Sample Growth.

Commissioner of Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

1. We, the undersigned, are inventors on the above-captioned patent application.

2. Prior to July 13, 2000, we reduced to practice, in the United States, a system for detecting growth of microorganisms in a sample in a container, the system having: a plurality of containers, a module having a plurality of openings for receiving the containers, a tunable laser configured to emit a beam through at least one container, a detector for detecting the light passing through the container, and a signal analyzer for analyzing the detected light. All experiments described herein were performed prior to July 13, 2000, in the United States.

3. The BD BACTEC 9050 is an instrument for determining microbial growth in sample containers, and contains a circular panel for holding multiple containers. We modified a BD BACTEC 9050 by providing a tunable laser and a photodiode, with the tunable laser configured to emit a beam through a container, and the photodiode configured to detect the light passing through the container. See Figures 1-3 below, which show various experimental configurations of the modified BACTEC 9050. Figure 1 shows a close up of a laser and detector with a single container. Figures 2 and 3 show configurations with multiple containers, and also showing a laser and detector.